Amendments to the Claims:

Please amend claims 1-4, 6, 8, 10-22, 24-27, 29-33, and 35-41 as set forth below. This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1. (Currently Amended) A gait monitoring system for monitoring gait characteristics of a subject, said system comprising:

a sensor module that detects at least one of floor acceleration, floor vibration, and/~~or~~ floor deflection to provide acceleration, vibration, and/~~or~~ deflection signal; and

a processor module that analyzes the acceleration, vibration, and/~~or~~ deflection signal for determining gait characteristics.

2. (Currently Amended) The system of claim 1, further comprising: an output module for receiving data indicative of the ~~said~~ gait characteristics ~~data~~.

3. (Currently Amended) The system of claim 2, wherein said output module comprises at least one of display, alarm, memory storage, communication device, printer, buzzer, PDA, lap top computer, computer, audio or visual alarm, and/~~or~~ light.

4. (Currently Amended) The system of claim 3, wherein said communication device comprises at least one of modem, pager, network interface, Ethernet card, serial communications port, parallel communications port, telephone, and/~~or~~ PCMCIA slot and card.

5. (Original) The system of claim 1, wherein said sensor module and processor module are in wireless communication.

6. (Currently Amended) The system of claim 5, wherein said wireless communication comprises at least one of RF link, an infrared, cellular phone link, optical and/~~or~~ electromagnetic.

7. (Original) The system of claim 1, wherein said sensor module and processor module are in a hard wired communication.

8. (Currently Amended) The system of claim 7, wherein said hard wired communication comprises at least one of electronic, integrated circuit, electromagnetic, wire, cable, fiber optics, a phone line, twisted pair, and~~/or~~ coaxial.

9. (Original) The system of claim 1, further comprising: a rate-of-travel detector to determine the rate-of-travel of the subject.

10. (Currently Amended) The system of claim 9, wherein said rate-of-travel detector comprises at least one of a ~~pluratlity~~ plurality of beam breaks, floor switches, and~~/or~~ door switches ~~swithches~~.

11. (Currently Amended) The system of claim 9, wherein said rate-of-travel detector comprises at least one of ultrasonic communication, IR communication, laser communication, ground radar communication, wide band radar communication, and~~/or~~ doppler communication.

12. (Currently Amended) The system of claim 9, said gait characteristics of the subject includes at least one of step count, pace, normal condition, limp, shuffle, falls, average walking velocity, step length, and~~/or~~ stride length.

13. (Currently Amended) The system of claim 1, said gait characteristics of the subject includes at least one of step count, pace, normal condition, limp, shuffle, and~~/or~~ falls.

14. (Currently Amended) The system of claim 1, wherein the ~~said~~ gait characteristics of the subject includes falls.

15. (Currently Amended) The system of claim 1, further comprising an archival storage module.

16. (Currently Amended) The system of claim 15, wherein said archival storage module stores at least one of longitudinal analysis of gait characteristics, pattern recognition, and/~~or~~ identification determination.

17. (Currently Amended) The system of claim 16, wherein said processor module analyzes the gait characteristics, pattern recognition, and/~~or~~ identification determination data

18. (Currently Amended) The system of claim 1, further comprising: a second processor module, wherein said second processor module analyzes the gait characteristics, pattern recognition, and/~~or~~ identification determination data.

19. (Currently Amended) The system of claim 1, wherein ~~said~~ the subject is one of a human and/~~or~~ an animal.

20. (Currently Amended) The system of claim 1, wherein ~~said~~ the subject is an animate or inanimate object.

21. (Currently Amended) The system of claim 1, further comprising a fall module that processes data received from said acceleration, vibration, and/~~or~~ deflection module.

22. (Currently Amended) The system of claim 1, further comprising a step module that processes data received from said acceleration, vibration, and/~~or~~ deflection module.

23. (Original) The system of claim 1, further comprising: a second processor module in communication with said system.

24. (Currently Amended) A method for monitoring gait characteristics of a subject, said method comprising:

detecting at least one of floor acceleration, floor vibration, and/~~or~~ floor deflection to provide acceleration, vibration, and/~~or~~ deflection signal; and

analyzing the acceleration, vibration, and~~/or~~ deflection signal for determining gait characteristics.

25. (Currently Amended) The method of claim 24, further comprising: outputting data indicative of the ~~said~~ gait characteristics ~~data~~.

26. (Currently Amended) The method of claim 25, wherein said outputting is provided by an output module that comprises at least one of display, alarm, memory storage, communication device, printer, buzzer, PDA, lap top computer, computer, audio or visual alarm, and~~/or~~ light.

27. (Currently Amended) The method of claim 26, wherein said communication device comprises at least one of modem, pager, network interface, Ethernet card, serial communications port, parallel communications port, telephone, and~~/or~~ PCMCIA slot and card.

28. (Original) The method of claim 24, further comprising: detecting rate-of-travel of the subject to determine the rate-of-travel of the subject.

29. (Currently Amended) The method of claim 28, wherein said detecting the ~~said~~ rate-of-travel is provided by a ~~rate~~ rate-of-travel detector.

30. (Currently Amended) The method of claim 28, wherein said detecting the rate-of-travel ~~detector~~ comprises at least one of ultrasonic communication, IR communication, laser communication, ground radar communication, wide band radar communication, and~~/or~~ doppler communication.

31. (Currently Amended) The method of claim 28, ~~said~~ the gait characteristics of the subject includes at least one of step count, pace, normal condition, limp, shuffle, falls, average walking velocity, step length, and~~/or~~ stride length.

32. (Currently Amended) The method of claim 24, ~~said~~ the gait characteristics of the subject includes at least one of step count, pace, normal condition, limp, shuffle, and~~/or~~ falls.

33. (Currently Amended) The method of claim 24, wherein ~~said~~ the gait characteristics of the subject includes falls.

34. (Original) The method of claim 24, further comprising: storing archival information or data.

35. (Currently Amended) The method of claim 34, wherein ~~said~~ the storing of archival information or data is provided by an archival storage module that stores at least one of longitudinal analysis of gait characteristics, pattern recognition, and~~/or~~ identification determination.

36. (Currently Amended) The method of claim 35, further comprising: analyzing the gait characteristics, pattern recognition, and~~/or~~ identification determination data.

37. (Currently Amended) The method of claim 24, wherein ~~said~~ the subject is one of a human and~~/or~~ animal.

38. (Currently Amended) The method of claim 24, wherein ~~said~~ the subject is an animate or inanimate object.

39. (Currently Amended) The method of claim 24, further comprising: analyzing fall data received from the acceleration, vibration, and~~/or~~ deflection signal.

40. (Currently Amended) The method of claim 24, further comprising: analyzing step data from the acceleration, vibration, and~~/or~~ deflection signal.

41. (Currently Amended) A computer program product comprising computer usable medium having computer logic for enabling at lease one processor in a computer system to monitor gait characteristics of a subject, said computer logic comprising:

detecting at least one of floor acceleration, floor vibration, and~~/or~~ floor deflection to provide acceleration, vibration, and~~/or~~ deflection signal; and

analyzing the acceleration, vibration, and/~~or~~ deflection signal for determining gait characteristics.